Date: Sun, 2 May 93 04:30:06 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #527
To: Info-Hams

Info-Hams Digest   Sun, 2 May 93   Volume 93 : Issue 527

Today's Topics:
          Daily Solar Geophysical Data Broadcast for 01 May
                  Linked/Wide Area Repeaters on I-40
                      W2A receiver modification

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 2 May 93 06:53:22 GMT
From: news-mail-gateway@ucsd.edu
Subject: Daily Solar Geophysical Data Broadcast for 01 May
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 121, 05/01/93
10.7 FLUX=102.6 90-AVG=131   SSN=041   BKI=2422 2000 BAI=006
BGND-XRAY=B1.5   FLU1=4.0E+04 FLU10=1.2E+04 PKI=3423 2222 PAI=010
  BOU-DEV=013,047,012,018,016,004,004,004   DEV-AVG=014 NT   SWF=00:000
 XRAY-MAX= C5.9   @ 2337UT   XRAY-MIN= B1.4   @ 2041UT   XRAY-AVG= B3.8
NEUTN-MAX= +002% @ 1715UT   NEUTN-MIN= -003% @ 1505UT NEUTN-AVG= -0.5%
  PCA-MAX= +0.2DB @ 2345UT   PCA-MIN= -0.2DB @ 2145UT   PCA-AVG= +0.0DB
BOUTF-MAX=55400NT @ 1145UT   BOUTF-MIN=55375NT @ 1653UT BOUTF-AVG=55391NT
GOES7-MAX=E:+111NT@ 1009UT   GOES7-MIN=N:-027NT@ 1024UT G7-AVG=+065,+054,+003
GOES6-MAX=P:+104NT@ 1241UT   GOES6-MIN=N:-125NT@ 0243UT G6-AVG=+082,-019,-060
 FLUXFCST=STD:105,110,110;SESC:105,110,110 BAI/PAI-FCST=015,010,030/020,015,020
    KFCST=3323 2111 1112 2111 27DAY-AP=031,102   27DAY-KP=1111 4656 7887 7644
 WARNINGS=
   ALERTS=
!!END-DATA!!

NOTE: The Effective Sunspot Number for 30 APR 93 was 83.0.
      The Full Kp Indices for 30 APR 93 are: 4o 3o 2+ 2+   3- 2+ 3- 2o

---

Date: Thu, 29 Apr 1993 15:49:24 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
zaphod.mps.ohio-state.edu!cs.utexas.edu!asuvax!ennews!anasaz!misty!
john@network.UCSD.EDU
Subject: Linked/Wide Area Repeaters on I-40
To: info-hams@ucsd.edu

kagoos@msuvx2.memst.edu writes:

]I will be leaving for a week long road trip thursday. I will be leaving
]Memphis, TN and going on I-40 all the way to LA. Does anybody know of any
]linked/wide area repeaters enroute. I will have 2m and 440 capabilities.

]I know there exsists linked systems like the ZIA Connection etc. If anybody
]has any info I would like to hear it.

In Arizona, you can work the Northlink System. We have repeaters reachable
from I-40 as follows:
     Navajo Mtn: 449.375, 146.96 (Just north of AZ Border) - I think
               you can hit it from some places on I-40 in eastern
               AZ
     Flagstaff (Mt. Elden) 442.125, 147.08 (From Winslow to Williams)
     Grand Canyon Village 442.075, 147.32 - I don't know if you can
               hit it from I-40, but if you are going to the
               Grand Canyon, it is located about 200 yds from
               the rim of the canyon about 1/2 mi west of Grand
               Canyon village.

440 repeaters take 100 Hz PL. Two meter repeaters MAY require 162.2 HZ
PL. However, the system is an OPEN system - feel free to us it. Other
repeaters not accessible from I-40 cover much of Central Arizona and
Southwestern Arizona.
The 440 repeaters are normally on link. 2 Meter repeaters need to be
commanded on link (public codes, but you'll need to ask the locals).

>Suresh N9GSA

>___ ___ _____ ___ ___ Suresh Kagoo EE Dept , Memphis State University
>| \/ | / ____\ | | | | Engineering 211 | Domain: KAGOOS@MEMSTVX1.MEMST.EDU
>| \ / | ____ \ | |_| | Memphis, TN 38152| AMPR : n9gsa@gate.n9gsa.ampr.org
>|_|\/|_| _____/ _____/ Ph: (901) 678-3867| AX.25 : N9GSA@W4BS.#WESTN.TN.USA

--
John Moore NJ7E, 7525 Clearwater Pkwy, Scottsdale, AZ 85253 (602-951-9326)
john@anasazi.com ncar!noao!asuvax!anasaz!john anasaz!john@asuvax.eas.asu.edu
 - - Support ALL ...erk glugh   mmpph.... Memory fault (core dumped)

Date: Sun, 02 May 1993 04:37:41 GMT
From: sdd.hp.com!zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!The-Star.honeywell.com!umn.edu!uum1!kksys.com!edgar!bryan@network.UCSD.EDU
Subject: W2A receiver modification
To: info-hams@ucsd.edu

In article <1993May1.155436.1@vaxc.stevens-tech.edu> u95_dgold@vaxc.stevens-tech.edu writes:
> I've heard of a mod to increase the UHF out of band receive sensitivity of the
> W2A. Could anyone please send me or post more information about this.

I've got a diagram that shows how to do it but it's not real good at labeling pin numbers so I'll try to describe it.

One word of warning. The parts involved here are surface mount and are very tiny. It's very easy to screw something up and loose UHF receive.

You need to open up the the UHF unit inside the radio and look at the component side of the board.

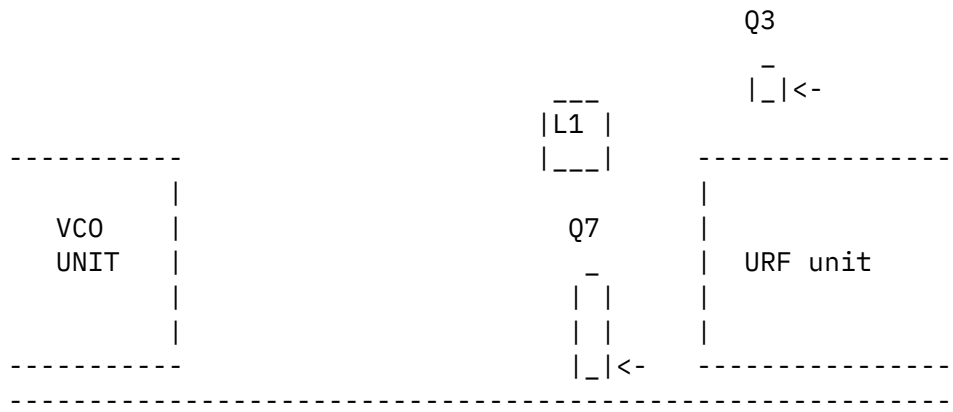
Q7 is a 5 pin surface mount IC that is near the edge of the board, about a half an inch from the URF unit. There are 2 pins on the side nearest the URF unit. You must lift the one nearest the edge of the board. Most of the people that I know who've tried this have broken off the IC leg or lifted the pad from the circuit board.

I don't see Q7 in the schematic, I think it's D7 in there.

Q3 is a surface mount transistor thats near the center of the board about three quarters of an inch from the URF unit.

Once you've lifted the pin on Q7 you attach the cathode end of a 1N34 diode to it. The anode end of the diode goes to the pin on Q3 that only has one pin on that side.

It sounds easy but Q7 is in a very tight corner. Here's an attempt at diagramming the locations. The "<-" mark where the connections should be.



--
Bryan Halvorson bryan@edgar.mn.org
N0BUU bryan@n0buu.tcman.ampr.org

Date: 2 May 93 06:34:47 GMT
From: swrinde!elroy.jpl.nasa.gov!news.claremont.edu!ucivax!turner@network.UCSD.EDU
To: info-hams@ucsd.edu

References <N4HY.93Apr30071756@growler.ccr-p.ida.org>,
<2BE1B201.25794@ics.uci.edu>, <1993May1.231431.24845@mnemosyne.cs.du.edu>
Subject : Re: Sueing Jammers (Was: Re: "Busting" Jammers)

In <1993May1.231431.24845@mnemosyne.cs.du.edu> mwgordon@nyx.cs.du.edu (Mike Gordon) writes:

>In article <2BE1B201.25794@ics.uci.edu> turner@safety.ics.uci.edu (Clark Savage Turner) writes:
>>How about your local ham repeater? There are
>>certainly some sorts of damages, but what are they and how large can
>>they reasonably be?

> Oh, how about rendering a $2000 (or usually more) piece of radio equipment
>temporarily useless. (Or permanantly unreliable as long as the jamming
>continues. (months and years))

This is a beginning, but you have to show how someone lost that money, exactly what it was worth, and how the fellow caused it. I am NOT suggesting it cannot be done, just that you need to think it over carefully

and prepare a very CLEAR case for a judge that may never have heard of ham radio and repeaters. And there may be an opposing attorney there to say that ham radio cannot involve business communications....and the judge may wonder what the damages are if this is a hobby. You will have to present a good case to show the judge exactly what the law demands in your case - with good, hard, organized evidence. If you have a lot of money and time, hire someone to investigate and prepare....otherwise, you will have to think along these lines and educate your attorney (and/or the judge) about it all. This is a serious undertaking, not accomplished by speculation or stating what we already know as hams who have been harassed by a jammer. We have to convince an impartial judge and possibly overcome the arguments of opposing counsel who will be doing his (or her) homework on how our case is weak.

>> Judges do not award damages for mere annoyance.

> Annoyance, no... harassment yes.

Perhaps you can define the difference in your terms. I am not sure what you are arguing with. My point was (see the context you pulled out) that you need to prove some sort of damages to have a case. You cannot go in to a judge and just say your neighbor bothers you (harassment?) and get a damage award. You cannot even get damages from purely emotional injury without some sort of objective "impact" (generally seen as a physical impact, evidenced by physical/monetary damages) except in few states and under very limited circumstances. The point, again: you need to suffer damages to get a money damage award. (If you are talking about an injunction, you are in another realm of law, and it presents its own unique problems.)

>>The second point is that you CANNOT win a suit without "one shred of >>evidence". You need reasonable, well documented evidence to win any case.

> I believe swarn testimony from a group of DFers (along with a good >explanation of radio direction finding and it's accuracy) would suffice.

Perhaps you have practiced law for longer than I have, but I don't believe that I would personally present such a case to a judge without some good malpractice insurance. Again, this is serious, if you want to take a guy to Court, you need to take it really seriously, and to present a very good, organized case to the judge. You need to find out how to qualify "experts" for testimony and who the best ones are to bring to Court. They could well be the local DF'ing group, but their qualifications and explanations need to be well prepared under the law of the particular state. I say this because
I have seen people lose cases, over and over (and even though they were probably "right") because of poorly conceived cases that they were so confident about that they did not do the groundwork to present

a good case to a judge who may know nothing about the subject matter.

>>The third point is that, even if the other side does not show and you
>>win by "default", you MUST PROVE your damages to the judge. You must
>>prove at least a reasonable case to get damages awarded.

>   Wrong! You only have to prove compensatory damages. The judge
>can determine what the proper amount of punitive damages would be. If
>the jammer messes with a repeater that frequently handles emergency
>traffic (law patches especially) or worse, jams an emergency communication,
>you could EASILY argue that the jammer has caused (and could cause more)
>damage to the community. Punitive damages would follow.

Again, maybe you are practicing far more than I have, especially in
this arena, and, if you have, I will stand corrected. However, you
seem to say that I am wrong in claiming that one must prove "damages"
even if one wins by default, but then you say one must only prove
"compensatory damages". Excuse me, but I fail to see the problem.

AND, trying to get punitive damages in a tort case such as damages
from jamming sounds pretty hard to me (not impossible, but darned
hard.) Punitive damages are awarded reluctantly by the Courts I have
been in, and only in the most awful of circumstances, and only where
they would make a difference. You speak of EASY arguments about
repeaters that handle emergency patches. NOT. The evidence you
present to the Court would need to be airtight, and you might note
that jamming emergency communications is probably a criminal matter
(esp under Federal law). At any rate, this is not an easy case.
Clearly, it is something I would pursue, but most carefully and
thoughtfully. None of this would be easy.

>>Next, it is often hard to COLLECT on a judgment! Getting a judgment
>>is often the easy part. If the jammer is poor or does not care, the
>>collection is really rough.

>   Difficult, but not impossible. After the creap shows that he doesn't
>want to pay, make the moves to garnish his wages and/or get a lien on his
>house (or radios).
>

Again, I have been doing this for years. The sorts I have known who
jam repeaters are judgment proof anyway, and garnishment....etc would
be of no use. However, if the guy owns a house or is a regular member
of the community, you got a good chance if you can take the time and
energy (and maybe money) to investigate and find this stuff out,
then execute on the judgment.

>>Frivolous suits are not a serious problem in my corner of the world,

>>but certainly can occasionally be a pain. Don't bring one, please.

>   Repeater jamming is NOT a frivolous problem.

How the heck did you think I implied that???? Again, you seen to
have deleted my context from the article, and you also seem to have
deleted my context from your mind. Please re-boot.

>>I WOULD encourage you to think along the lines of a civil suit for
>>multiple intentional jamming.

>   Or, how about this... sue the jammer for theft of services (the
>repeater). Carefully draw up a statement to be provided to dues payers
>(and other users) saying that the dues to "use the repeater for
>legitimate comm" is $XX.00 and to use the repeater to jam communications
>or other nasty things is $10,000.00. Anyone who wants to pay $10,000 to
>jam the repeater most certainly could buy his own and mess with it.

Well, Mike, your theft of services is basically the name of a criminal
theory. We have been talking civil action here.
Your point is well taken, though, you would want to hit a
jammer for tying up the repeater resources ($$) for some amount of time
when he (she) had no legal right or privilege to do so. Your idea about
a statement is "cute", but would not help you in the Court case against
an alleged jammer, unless the jammer was a member of the system and had
signed the agreement (unlikely).

I just want to reiterate, again, that this is a serious matter. Jamming
is a serious problem, and we need to address it. However, if we are to
address it with the Civil Law, we need to do it properly, and not go
off thinking that there are easy arguments and that we have all truth
and light overwhelmingly on our side. This can produce lost opportunities
to do some important work in the war on jammers. Legal action is not
something to be taken lightly or done in an armchair quarterbacking
manner. Legal action is an important tool to be used carefully and
wisely and only when it is truly called for. (Don't I wish the FCC
would get some sudden funding for enforcement activities....then we
wouldn't have this discussion!)

72 73, and I feel like any more discussion along the lines of the
above should be off-line with me. Feel free to write.

Clark

.....

Clark Savage Turner, Graduate Student Researcher

Safety Critical Software Group   home:
Department of Info. and Computer Science 1514 Verano Place
Irvine, CA. 92717   Irvine, CA. 92715
(714) 856 4049   (714) 856 2131

WA3JPG, QRP #3526, active on HF, VHF and UHF.
Admitted to practice law in California, Massachusetts, and New York.
ARRL Volunteer Counsel

End of Info-Hams Digest V93 #527
****